

MEMORANDUM

TO: STEVEN C. PARRISH
FROM: WILLIAM W. DAVIS, EXT. 2365
DATE: MARCH 29, 1990
RE: COMMENTS ON THE VARELA DISSERT.

At your request, I have listed below a number of possible challenges to the dissertation. Most of these questions appear in our consultant evaluations of the dissertation. Complete copies of those evaluations are attached to this memo. Also attached are the results from the search on copyright registration.

Questions/Challenges/Criticisms:

1. Since raw data are lacking, we must assume the statistics have been correctly calculated from the database;
2. In order to achieve the desired sample size, the author combined never and former smokers -- this may introduce confounding of smoking histories;
 - a. The follow-up rate for cases-controls was 76%, a percentage greater than other studies but still less than complete;
 - b. There were differences in amount smoked between (former smoking) cases and controls. Former smokers smoked more than cases. This may or may not have adversely affected the results;
3. In 73 subtests for statistical significance, only one was significant -- one would expect to find 2-5 significant results on the basis of chance alone. This may raise a red flag to critics;
4. There is an inverse relationship reported between exposure to ETS in social situations and lung cancer risk. This may provoke critics to dismiss the analysis out-of-hand, because it appears to suggest that ETS has a "protective" effect on "social" individuals.